

ABSTRACT

Disclosed is a color optical link using a transparently jacketed plastic optical fiber that optically transmits data and uses light, scattered and emitted to the outside, for the purpose of illumination, and a method for achieving the color optical link. The color optical link includes a first driver that receives digital or analog signals and a coloring signal in parallel and converts these signals into optical signals through a plurality of light sources. These light sources emit light of different wavelengths. A first POF coupler, connected at one end of the optical fiber, inputs the received optical signals into the optical fiber. A second POF coupler at the other end separates the transmitted optical signals into a plurality of optical signals and inputs these optical signals into a plurality of optical detectors having filters for separating the received signals into plural signals according to wavelength. A second driver converts the received optical signals into electrical signals.